

I am convinced that plants of the Man-of-the-Earth get very old. On my father's farm in Southwestern Pennsylvania, a few plants grew in a field (the root shown above was from that group). For eighty years, the land was cultivated, alternating in corn, oats, wheat, and grass. When in sod, which was for only two or three years at a time, the plants would grow and bloom, but were not often seen when the cultivated crops were growing. The number of plants did not seem to increase or decrease as the years went by. Another plant grew on a bank by the roadside where year after year it came up and bloomed. It was there when I was a boy, and apparently the same plant, for there was but one, decorated the roadside the last time I went by the place. I would not be surprised if plants of this species sometimes live and bloom for half a century.

Explanation of plate III

Blossoms of Wild Potato Vine, *Ipomoea pandurata*. Photograph by O. P. Medsger.

Root of Wild Potato Vine (resembles a petrified dog). Photograph by O. P. Medsger.

LINCOLN HIGH SCHOOL,
JERSEY CITY, NEW JERSEY.

ALPINE PLANTS OF KASHMIR*

RALPH R. STEWART

Kashmir is an Indian State in the North West Himalayas. It is all mountainous with the exception of the famous Vale of Kashmir, at an elevation of 5,500 feet, which may now be reached by a good motor road from Rawalpindi in the Punjab. During the past twelve years I have spent parts of seven summers collecting in Kashmir and am now working over the material in The New York Botanical Garden.

The same four main zones that Rydberg found in the Rocky Mountains are to be found in Kashmir. The foothill zone is arid and the commonest tree is *Pinus longifolia*. In the lowest foothills there is a thorny scrub jungle with such trees as *Acacia*, *Bauhinia* and *Pistachia* and at the upper limit of the zone oaks are very common.

* Abstract of a talk before the Torrey Botanical Club, January 30, 1924.



In the second or montane zone, *Pinus excelsa* is most common and in this region, especially in the deeper and better soils there are many deciduous hard woods such as Acer, Fraxinus, Rhus, Juglans, Pyrus Prunus, Celtis, Ulmus and Salix. This zone extends roughly from 6,000 to 9,000 feet. The most valuable tree is *Cedrus deodara*, closely related to the Cedar of Lebanon.

The sub-alpine zone extends to about 12,000 feet and the most abundant tree is the Himalayan fir, *Abies Pindrow*. Associated with the fir and replacing it toward the tree line is the white birch, *Betula utilis*. The three Kashmir rhododendrons, the alpine junipers and willows are found near and above the birches.

It is hard to give figures for the altitude of the alpine zone. In sheltered places the snow lies longer at 9,000 than it does at 12,000 feet elsewhere and so alpine plants are commonly found from 9,000 feet to the line of permanent snow which is between 14,000 and 15,000 feet on the Indian side of the Himalayas, and much higher on the Tibetan side.

I have been specially interested in the alpine and sub-alpine zones about the camping ground of Sonamarg in the Scinde Valley. The camping site is at 9,000 feet and the mountains are from 14,000 to 15,000 feet. There are a number of small glaciers and there is a good deal of permanent snow.

Within five or six miles of camp I have gathered over 550 plants including ferns and flowering plants. The commonest orders and genera are familiar to botanists in the north temperate zone. The following have the most species:

Ferns	28	Grasses	36
Sedges and Juncus	23	Buttercups	28
Crucifers	18	Caryophyllaceae	22
Peas	22	Rosaceae	35
Sedums, Saxifrages	17	Umbelliferae	19
Compositae	63	Primulas	13
Gentians	13	Borages	10
Scrophulariaceae	20	Labiatae	23
Polygonaceae	16	Conifers	7
Orchids	9	Liliaceae	13

The following genera are the commonest and have ten or more species in the area under review: Carex, Potentilla and Poly-

gonum. The following have five or more species: *Asplenium*, *Poa*, *Juncus*, *Anemone*, *Corydalis*, *Viola*, *Stellaria*, *Astragalus*, *Cotoneaster*, *Saxifraga*, *Sedum*, *Lonicera*, *Valeriana*, *Artemisia*, *Senecio*, *Saussurea*, *Primula*, *Androsace*, *Gentiana*, *Veronica*, *Pedicularis*, *Nepeta*, *Salix* and *Allium*.

One of the most interesting plants is *Arceuthobium minutissimum*, a tiny parasite belonging to the Loranthaceae which is able to kill pine trees. The most striking flower is the blue poppy, a *Meconopsis*. *Megacarpa polyandra* is a curious crucifer with many stamens. The edelweiss, *Leontopodium alpinum*, is abundant. *Primula reptans* is so small that the flower is taller than the whole plant and is much larger than the leaves.

A number of our common introduced American weeds are apparently indigenous, including mullein, yarrow, *Capsella*, *Poa* sp., *Dactylis glomerata*, fireweed, *Galium aparine*, *Galinsoga*, *Plantago* sp., *Brunella* and *Leonurus*.

NEW YORK CITY.

A FOSSIL CELTIS FROM COLOMBIA

EDWARD W. BERRY

I am indebted to Dr. W. P. Woodring for the characteristic fossil fruit of an Eocene species of *Celtis* which is described in the following note. The specimen is of especial interest, not only because it represents the first fossil species of this genus, which is so abundant in the existing flora of South America, that has been found on that continent, but also because, unlike so many similar plant fossils that have come into my hands from South America, the geological age of the material is definitely known. I owe the specimen to the courtesy of the Tropical Oil Company.

The specimen upon which the present species is based was collected by A. Iddings and R. L. Beckelhymer on the east side of a hill one mile west of Pijaquay, on the trail passing directly over the hill to Don Gabriel, in the Department of Bolivar, Colombia. It came from marine fossiliferous deposits determined by Dr. Woodring, to be of middle Eocene age, that is, about the same age as the Claiborne group of our Gulf Coastal Plain, the Green River formation of the western Interior (Wy-